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# DEPARTMENT OF THE INTERIOR Bureau of Sport Fisheries and Wildlife Division of Federal Aid

SIE NO.	
Project	No.

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#### Job Description:

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Gee, Merle A. 1952 Fish stream improvement handbook. U. S. Dept. of Agri., U.S. Forest Service, Washington, D. C. 21 pp.

Hazzard, A. S. 1937. Results of stream and lake improvement in Michigan. Trans. 2nd. No. Amer. Wildl. Conf., pp. 620-624.

Hubbs, Carl L., J. R. Greeley, and C. M. Tarzwell. 1932. Methods for the improvement of Michigan trout streams. Bul. Mich. Cons. Dept. Inst. Fish Res., 1, 54 pp., 18 fig.

ubb, Carl L., Clarence M. Tarzwell, and R. W. Eschmeyer. 1934. C.C.C. Stream Improvement work in Michigan. 63. 404-414.

Mavaree, Richard J. 1962. A new stream habitat improvement structure in New Mexico. Trans. Am. Fish. Soc. 91: 228-229.

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Robinson, David and Raymond Menendez. 1964. Stream improvement attempts on three Morth-western West Virginia warm-water streams. Dept. of Matural Res. Charleston, West Virginia. 18 pp. and Appendix.

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Smith, Lloyd L., and S. B. Moyle, 1964. A biological survey and fishery management plan for the streams of the Lake Superior North Short watershed. Minnesota Fish Res. Lab., Tech. Bul. 1: 1-228.

Warner, Kendall and Ivan R. Porter. 1960. Experimental improvement of a bulldozed trout stream in Northern Meine. Trans. Am. Fish. Soc. 89: 59-63.

Contract Period:	
contract Period:	Total Cast
	Total Cost:

55-06

# MONTANA STATE DEPARTMENT OF FISH AND GAME FEDERAL AID IN FISH RESTORATION SECTION HELENA, MONTANA

## JOB COMPLETION REPORT DEVELOPMENT PROJECT

State of	<u>Montana</u>	· · · · · · · · · · · · · · · · · · ·	The first of the second of the					
Project	No. <u>F-15-D-3</u>	· · · · · · · · · · · · · · · · · · ·		Name	e <u>Marias</u>	River	Fishery	Restoration
Job No.	I	. ·						
Period	Covered May 1	. 1956 - Ap	ril 30, 1957	1973 - 1973				

#### Abstract:

Rehabilitation of the Marias drainage upstream from Tiber Dam was accomplished during 1954 and 1955. Follow-up work in order to locate and remove isolated carp or goldeye in the area was carried out during 1956. Techniques were developed to transport and plant large numbers of trout from widely separated hatcheries and the state and properly distribute them in the Tiber impoundment and upstream waters. Approximately 6,030,500 rainbow trout were planted in the Tiber impoundment during 1956. About 1,500,000 were planted in waters upstream from the impoundment of which 6,500 were catchable size.

#### Objectives:

Rehabilitation of the Marias River drainage above Tiber Dam was accomplished during 1954 and 1955. The major objectives of this rehabilitation work was the removal of carp and goldeye, the decimation of other undesirable species, and their replacement by trout.

To locate and remove isolated carp or goldeye in the area rehabilitated was an objective of this project.

To establish a trout population in the Tiber impoundment and the upstream waters was a further objective.

#### Techniques Used:

Checks for undesirable fish were made with limited use of toxicant usually applied in isolated locations.

Fish planted in the streams of the drainage were transported into the area on regular distribution trucks. The fish tanks were then transferred by use of power equipment to four-wheel drive vehicles which were capable of traversing the rough terrain along the streams of the upper Marias drainage.

Fish planted in the Tiber impoundment were transported and planted by use of a specially built tank mounted in a Cessna 180 airplane. Oxygen was supplied to the water enroute from samll oxygen bottles carried in the airplane.

#### Findings:

Virden Reservoir, an isolated reservoir near Shelby, was checked by using toxicant on May 11, 1956. Thirteen adult carp were killed by this application. The reservoir had been treated by aerial application during 1955. A duster unit newly purchased and installed in the airplane was first used on this small reservoir in 1955, but because of the tendency of the commercial product, Fish Tox, to bridge badly, it did not function properly. Subsequent modifications on the duster unit improved considerably the application by this method.

Pondera Coulee near Conrad was checked on July 11, 1956: No carp were found in this area.

A reservoir located at Chester was treated with toxicant on September 7, 1956: This body of water does not drain to the Marias river above Tiber Dam: It was found to contain a breeding population of carp, and to prevent any possibility that small carp might be moved to Tiber Dam, they were killed out by use of toxicant.

On August 22-24, 1956, several sloughs along Cut Bank Creek and the Dry Fork of the Marias were treated with toxicant. No carp or goldeye were observed although numerous minnows and small suckers were found.

An opportunity was afforded during 1956 and a water right was purchased on Pondera Coulee in order to sustain flows in the stream, during the low water period and to be used in development of a pond fishery in the vicinity of Conrad.

The Soil Conservation Service program of flood control included plans for building a dam on Pondera Coulee in the Conrad vicinity: Plans were discussed to include fishery management facilities in this project, but because of opposition of the landowners of the proposed site, the project was discontinued.

If a suitable site can be located on Pondera Coulee in the Conrad vicinity, further development of fishery facilities will be proposed.

A total of 6,031,500 rainbow trout from one to four inches were planted in the Tiber impoundment during 1956: The majority of these fish were approximately two inches long. All were planted from a Cessna 180 airplane.

Another 1,513,500 rainbow trout were planted in rehabilitated waters of the drainage upstream from the Tiber impoundment: Approximately 6,500 were catchable-sized fish planted at easily accessible locations: The remainder, approximately 1,477,148 fish, approximately two inches long were transported along the streams in four-wheel drive vehicles and well distributed in the waters.

#### Recommendations:

It is recommended that a follow-up investigational study be made on the Tiber impound-ment and the rehabilitated waters of the Marias drainage upstream from Tiber Dam.

#### Data and Reports:

The original data and reports are in the Fisheries office of the District Headquarters in Great Falls.

Prepared by	Nels A.	Thoreson		Approved by Genge W Hollon
Date	May 15.	1957	<u>. –                                    </u>	George D. Holton